

SOUTHERN GEOGRAPHIC AREA
Daily Fire Weather and
Behavior Outlook



Note: This product is intended to depict general fire weather conditions impacting the Southern Area. Information is summarized from various sources applicable to the Geographic Area scale, including local National Weather Service fire weather forecasts, and may not accurately reflect local conditions at a specific site. [NWS Fire Weather Forecasts](#) and spot weather forecasts should be used for local tactical decision-making. [*Local fire behavior projections using site-specific fire environment inputs should be used for specific fires in your area.*](#)

Issued: 02/09/06 07:13 EST

Valid: Thursday
February 9, 2006

Next Update: This is the last
forecast until
conditions warrant an
update.

Fire Weather Outlook for – Thursday, February 9, 2006

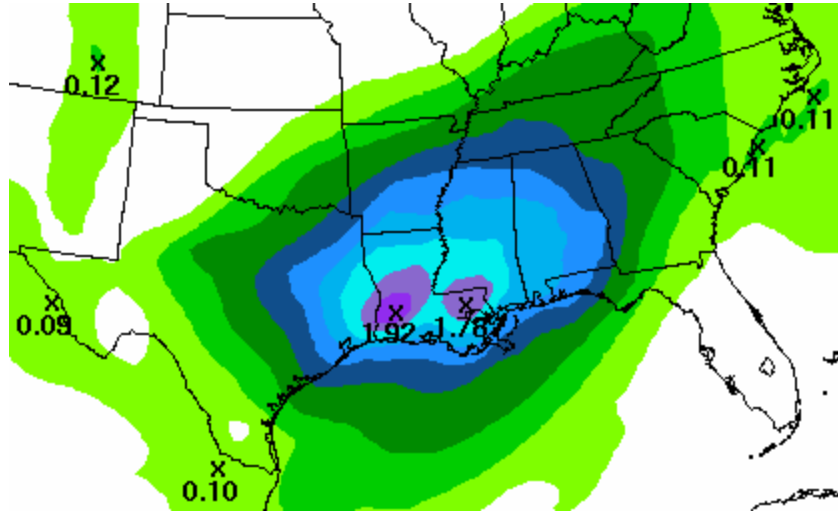
Today's Synopsis:

High pressure will move from southeast Missouri to southwestern Virginia today. As a result, we will have another day of cool and dry conditions with Red Flags over Florida. Red Flags will likely occur again on Friday over Florida as the high shifts off the South Carolina coast.

Once the high moves out into the Atlantic Ocean on Friday, southerly flow will resume in the I-35 corridor of Texas and Oklahoma. The southerly flow coupled with a disturbance in the mid levels of the atmosphere will produce rain over central Texas. The rain shield may be extensive enough to provide some rain (or snow) to southern Oklahoma as well. The rain will expand northward during Friday afternoon and encompass most of Arkansas by nightfall. The heaviest rains and the highest totals Friday will lie in a band from about Paris to Shreveport to Vicksburg.

Friday night, light rain or snow spreads eastward across Kentucky and Tennessee, while widespread rains move across Mississippi and Alabama and further east into Georgia. By Saturday morning, rains will cover most of the Florida Panhandle and will continue northward to the North Carolina Mountains. Snow is a distinct possibility for north Georgia and North Carolina. Saturday afternoon the rain will move off the Atlantic coastline and southward across the Florida Peninsula as a reinforcing shot of cold air moves southward through the Plains. Wrap-around snow showers will dot the Appalachian landscape Saturday and possibly linger into Sunday. Otherwise, about the only rainfall in the region on Sunday will be across the southern third of the Florida Peninsula.

Precipitation Forecast through Saturday, February: 11



SEE ALSO YOUR LOCAL [NATIONAL WEATHER SERVICE FIRE WEATHER FORECAST](#)

Useful Fire Weather Links:

[SACC Daily Morning Report](#) (includes 10 Day Trends Summary)

[Southern Area Days Without Significant Rain Graph](#)

[Interactive NWS Fire Weather Forecast Map](#)

[Storm Prediction Center Fire Weather Forecasts](#)

[Graphical Weather Forecasts from NWS](#) (Looping graphics of next 5 days weather)

[Climate and Drought Outlooks and Forecasts](#) (updated often)

[ROMAN Current Weather Summary for Southern Area](#)

Fire Behavior Outlook for Thursday–February 9, 2006

General Fire Behavior Outlook:

Most of the Region will be rain free with cool temperatures and higher RH values keeping the fire danger **LOW** for the majority of the area. Fuels remain very dry on the rain free area of the west but look for windy conditions today. New record ERC's and BI's were set again for this portion of the Region (see chart below). Winds will not be a factor for the majority of the region today but dry air remains a

factor for Florida where **RED FLAG** warnings have been posted for today for most of Florida for very dry, windy conditions once again in the afternoon.

Texas, Oklahoma and northwest Arkansas:

Look for increasing winds today . RH values will be above yesterdays but remain relatively low and combined with the wind, fire behavior will be above yesterdays. Record ERC's and BI's were recorded yesterday (again). Look for increased fire behavior today with the passage of another dry cold front.

Florida:

Red Flag conditions will be met by 11:00 today for dry conditions for the region until this evening. Look for NW and West winds combined with low RH values during this period . Heavy fuels still retain moisture from recent rains and have lowered ERC's and BI's to near normal levels for this time of year (see chart below).

Remaining Southern Area:

Winds will generally be less than 10 mph with relative humidity ranging from 30-100 percent in the afternoon. Mostly clear to cloudy skies cover most of the eastern area with less wind, rain and higher RH values so expected fire activity to be **Low** throughout the majority of the Southern Area with some isolated areas of moderate where windy, dry conditions exist. Light precipitation is forecast for the northern portion of the region. No unusual fire behavior is expected.

Today's Specific Areas of Concern:

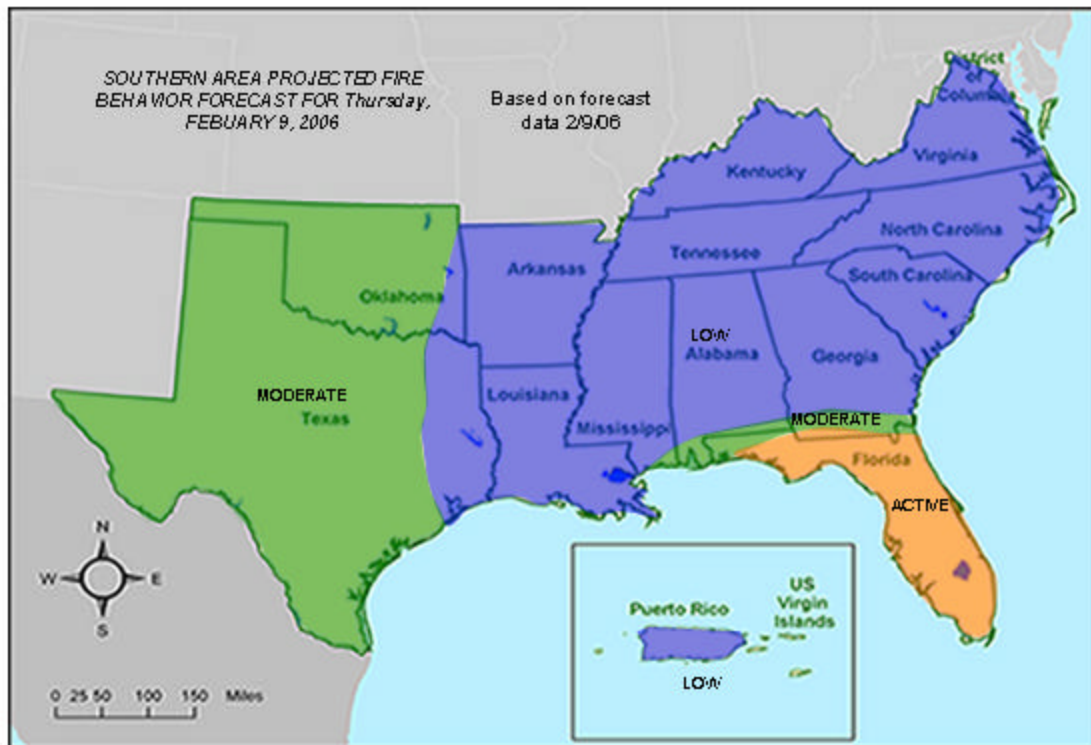
Only northern Florida is of concern today with the **RED FLAG** Warnings for the northern portion of the area. Normal initial attack activity is anticipated with no extended attack type of activity anticipated. The western portion of the Region is still setting record

ERC's (over the 97 percentile value for the first 4 months of the year). Winds may be a factor tomorrow with the passage of yet another dry cold front.

Extended Fire Behavior Outlook:

Look for increased fire behavior conditions tomorrow with increased northerly winds in the Texas and Oklahoma areas. No precipitation is forecast. BI's, rates of spread and IC's will again be of concern.

Today's Fire Behavior Forecast:



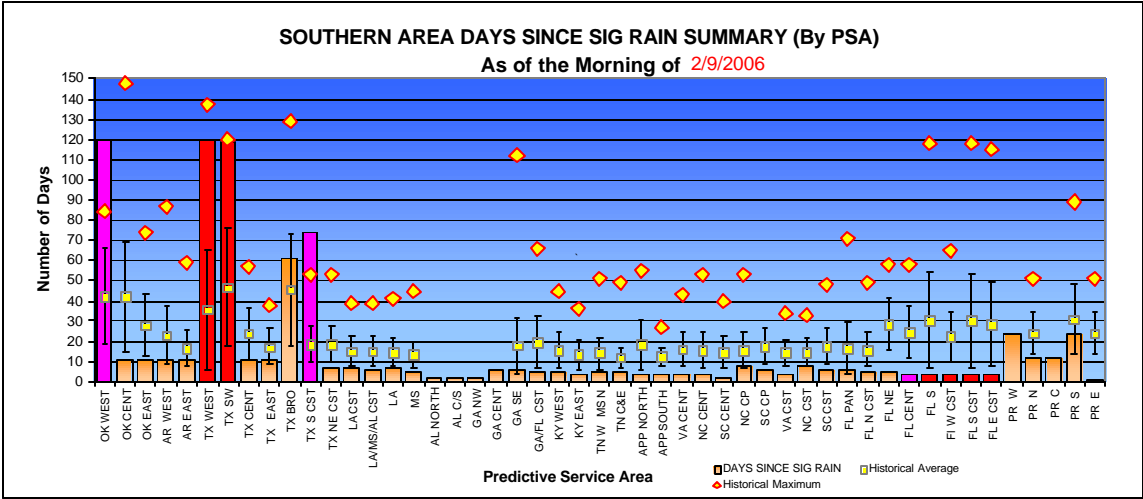
Corrected Fine Fuel Moisture Table

Air temperature (°F)	1 Hour Unshaded fuels Relative Humidity																
	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
30-49	3	3	4	5	6	6	7	8	8	8	9	10	10	11	11	12	13
50-69	3	3	4	5	6	6	7	7	8	8	9	9	10	10	11	12	13
70-89	2	3	3	4	5	6	6	7	8	8	9	9	9	10	11	11	12
90-109	2	3	3	4	5	5	6	7	8	8	9	9	9	10	11	11	12

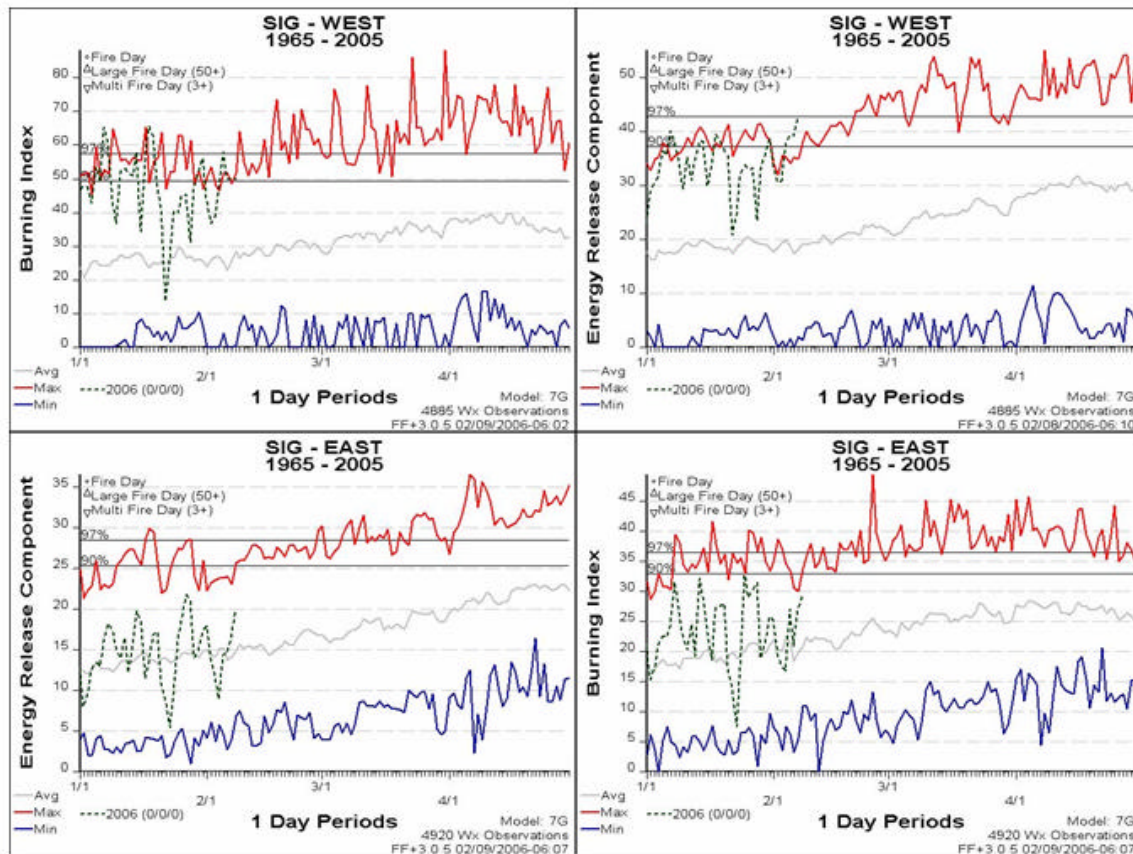
Air temperature (°F)	1 Hour Shaded fuels Relative Humidity																
	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
30-49	5	5	6	7	8	8	9	10	10	10	11	12	12	13	13	14	15
50-69	5	5	6	7	8	8	9	9	10	10	11	11	12	12	13	14	15
70-89	4	5	5	6	7	8	8	9	10	10	11	11	11	12	13	13	14
90-109	4	5	5	6	7	7	8	9	10	10	11	11	11	12	13	13	14

Calculated using Behave assuming level ground, Feb-Apr @ 14:00 hrs. South facing aspect

Southern Area Day's Since Significant Rain Summary



ERC and BI graphs for Western and Eastern weather stations - Southern Area:



The Burning Index and Energy Release Component calculated from historic RAWS data from all 95 Southern Area RAWS weather stations and displayed as western stations and eastern stations. Despite recent precipitation, western stations continue to run well above to exceeding historic maximums. Eastern stations are running at to slightly above historic averages. Graphs are through 2-09-06.

Useful Fire Behavior and Fuels Information Links:

[Florida KBDI's](#)

[National KBDI Map from WFAS](#)

[Texas ERC Graphs](#)

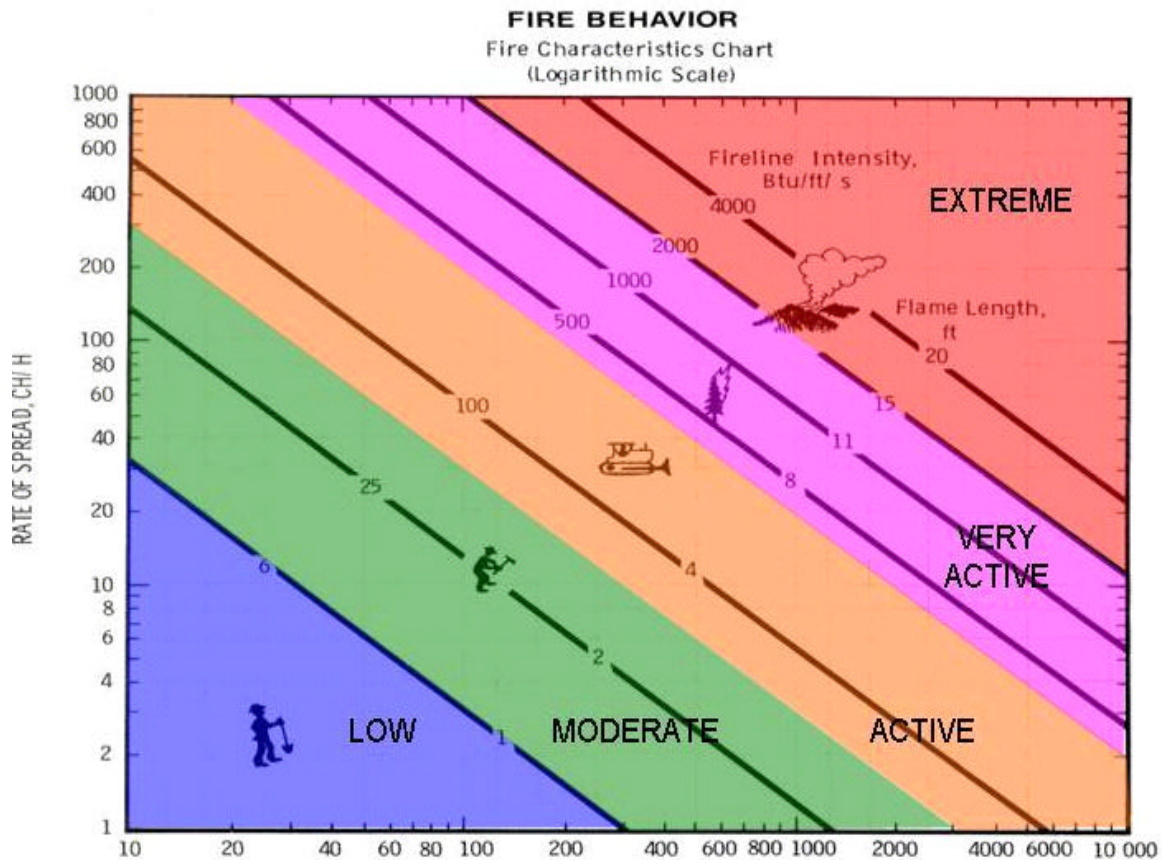
[Texas Fire Risk Assessment](#)

[Fuels Assessment in Hurricane Rita Damage Zone](#)

[East Texas Fire Behavior Update](#)

[Oklahoma Fire Danger Map](#)

Adjective Ratings for Fire Behavior (Description of Characteristics Chart below)



FLAME LENGTH /SPREAD RATE CALCULATIONS FOR SELECT FUEL MODELS:

Fuel Model		Midflame Wind Speed	2 mph	4 mph	6 mph	8 mph	10 mph	12 mph	14 mph
1 Grass	Flame Length (ft)		2	4	5	7	7.5*	7.5*	7.5*
	Spread Rate (ch/hr)		18	61	135	242	270*	270*	270*
GR-4 Mod Dry Grass	Flame Length (ft)		4	7	8	10	12	13	15
	Spread Rate (ch/hr)		16	41	72	109	150	195	243
2 Grass-Timber	Flame Length (ft)		3	6	8	10	12	14	15
	Spread Rate (ch/hr)		9	27	54	89	133	184	243
7 Southern Rough	Flame Length (ft)		4	5	7	8	9	10	11
	Spread Rate (ch/hr)		10	22	37	54	73	92	113
9 Hardwood Litter	Flame Length (ft)		2	2	3	4	5	6	6
	Spread Rate (ch/hr)		3	6	12	19	27	36	47

Projections assume Head fire, a fine fuel moisture of 6%, herbaceous fuel moisture of 70%, woody fuel moisture of 90%, 10 hr fuels of 10, 100 hr fuels of 12 and 0% slope. * Wind limit of the fuel model.

Spotting Distance in Miles

20' Wind speed	Surface Fire Flame Length (ft)								Spot from Tree* miles	* Assumes 1 longleaf pine 18 inch dbh torching on level ground, open cover.
	2	4	6	8	10	12	14	16		
10 mph	0.10	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.2	
20 mph	0.15	0.2	0.3	0.4	0.5	0.5	0.6	0.6	0.3	
30 mph	0.20	0.3	0.4	0.5	0.6	0.7	0.8	0.8	0.5	
40 mph	0.25	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.7	

Probability of Ignition – No Shading

1 hr fuel moisture	Dry Bulb Temperature						
	30	40	50	60	70	80	90
2	86	89	92	95	98	100	100
4	64	67	69	71	74	77	79
6	48	50	52	54	56	58	61
8	35	37	38	40	42	44	46
10	26	27	28	30	31	33	35
12	18	20	21	22	23	25	26
14	13	14	15	16	17	18	19

Safety:

Local units and personnel can be a valuable source of information regarding local fire conditions and fire behavior. Talk to them and relate their experiences to yours. Good communication about weather and fire behavior is an excellent way to maintain the safety of all personnel. *THIS INFORMATION HELPS TO VALIDATE FIRE BEHAVIOR FORECASTS AND TO PROVIDE MORE ACCURATE FIRE BEHAVIOR FORECASTS IN THE INTEREST OF FIREFIGHTER SAFETY. OUR BOTTOM LINE AND OUR PRIMARY REASON FOR BEING HERE IS THE SAFETY OF FIREFIGHTERS IN THE FIELD.*

Is this product servicing your needs? Observations and comments are welcome.

Craig Carter, Fire Behavior Analyst foenwind@sbcglobal.net

678-320-3000 ext 3019

Kevin Scasny, SACC Meteorologist

678-320-3009

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SACC Predictive Services Group